Amendments to the Claims:

The Listing of the Claims below replaces all previous listings of the claims.

1. (Withdrawn) A method for melting glass comprising:

providing a current conducting melting vessel within which glass can be melted;

providing at least two induction heating coils at selected locations proximate to the melting vessel;

selectively supplying power to the coils to thereby selectively energise the coils; and

preventing or permitting a mutual induction of current in a heating coil adjacent to an energised heating coil by selecting an on or off status of a switching element in power supply circuitry associated with the heating coil.

2. (Withdrawn) The method as claimed in claim 1 further comprising:

when two or more adjacent coils are simultaneously energised during a heating operation, balancing the heating power delivered to respective zones associated with each adjacent coil, in the vessel.

3. (Withdrawn) The method as claimed in claim 2 further comprising:

during the heating operation in which two or more adjacent coils are simultaneously energised, allowing the mutual induction of current in the adjacent coils to occur.

4. (Withdrawn) The method as claimed in claim 1 further comprising:

selecting which of the at least two induction coils is energised by selectively switching a switching element, located in power supply circuitry associated with a respective coil, on or off.

5. (Withdrawn) The method as claimed in claim 1 further comprising:

prior to a step of energising a selected coil, precharging a capacitor bank and subsequently utilising power stored in the capacitor bank during the precharging step, during an early stage of energising the selected coil.

6. (Withdrawn) The method as claimed in claim 1 further comprising the step of providing a 50 Hertz AC power supply for supplying power to the at least two coils.

7. (Withdrawn) The method as claimed in claim 1 wherein the switching elements comprise at least one thyristor.

8. (Previously Presented) An apparatus for melting glass via induction melting comprising:

a current conducting melting vessel;

at least two induction heating coils provided at selected locations proximate to the melting vessel;

a plurality of power supply circuits each being associated with a respective one of the heating coils and being arranged for selectively supplying power to a respective coil to thereby energise that respective coil; wherein

each power supply circuit includes a switching element arranged to prevent or permit a mutual induction of current in a respective heating coil when an adjacent heating coil is energised according to a selected on or off status of the switching element.

9. (Previously Presented) The apparatus as claimed in claim 8 wherein:

each heating coil is arranged to provide a heating effect in a respective region of the melting vessel when the coil is energised.

10. (Previously Presented) The apparatus as claimed in claim 8 wherein the switching element comprises at least one thyristor.

11. (Previously Presented) The apparatus as claimed in claim 8 wherein:

the melting vessel includes an input and a drain output and pour output arranged respectively for receiving glass frit and waste material, draining the contents of the vessel during

a draining operation and pouring a molten mixture of the glass and waste material during a pour operation.

12. (Previously Presented) The apparatus as claimed in claim 11 further comprising:

a plurality of induction heating elements each arranged proximate to a respective one of the inputs and drain and pour outputs and arranged to selectively melt a glass seal closing the input or output to thereby permit the addition of new glass and/or waste material and the outflow of molten material, respectively.

13. (Previously Presented) The apparatus as claimed in claim 8 wherein:

each power control circuit includes a further switching element arranged to selectively charge a bank of capacitors in the power control circuit during a precharge operation.

14. (Previously Presented) The apparatus as claimed in claim 8 further comprising:

a 50 Hertz AC power supply for supplying power to the heating coils.

15. (Withdrawn) A method for reprocessing waste material comprising:

locating the waste material together with glass forming material in a current conducting melting vessel;

applying power to at least one of a plurality of induction heating coils located proximate to the vessel to thereby heat the glass forming material; and

subsequently pouring a molten mixture of glass and waste material from the vessel into a storage container; wherein

during the power applying step, at least one of the heating coils is energised and mutual induction of current in a heating coil adjacent the energised coil is prevented or permitted by selecting an on or off status of a switching element in power supply circuitry associated with the a heating coil.

16. (Withdrawn) The method as claimed in claim 15 further comprising:

when two or more adjacent coils are simultaneously energised during the power applying step, balancing the heating power delivered to respective zones associated with each adjacent coil in the vessel.

17. (Withdrawn) A method for melting a target material comprising:

providing a current conducting melting vessel within which the target material can be melted;

providing at least two induction heating coils at selected locations proximate to the melting vessel;

selectively supplying power to the coils to thereby selectively energise the coils; and

preventing or permitting a mutual induction of current in a heating coil adjacent to an energised heating coil by selecting an on or off status of a switching element in power supply circuitry associated with the a heating coil.

18. (Withdrawn) The method as claimed in claim 17, further comprising:

when two or more adjacent coils are simultaneously energised during a heating operation, balancing a heating power delivered to respective zones associated with each adjacent coil, in the vessel.

19. (Withdrawn) The method as claimed in claim 18, further comprising:

during the heating operation in which two or more adjacent coils are simultaneously energised, allowing the mutual induction of current in the adjacent coils to occur.

20.-21. (Canceled).

22. (New) The apparatus as claimed in claim 8, wherein the at least two induction heating coils comprise a first induction heating coil and a second induction heating coil, and when the switching element is in the off status, the switching element is configured to open a circuit including the second induction heating coil to prevent the mutual induction of

current by the second induction heating coil when the first induction heating coil is energised, and when the switching element is in the on status, the switching element is configured to close the circuit including the second induction heating coil to permit the mutual induction of current in the second induction heating coil when the first induction heating coil is energised.

23. (New) The apparatus as claimed in claim 8, wherein each induction heating coil of the at least two induction heating coils comprises first and second opposite ends, the apparatus further comprising an induction coil circuit that includes a respective power supply circuit and electrically connects the first and second ends of the induction heating coil, wherein the switching element is positioned in the induction coil circuit, and the switching element is configured to open the induction coil circuit when the switching element is in the off status to prevent the mutual induction of current and to close the induction coil circuit when the switching element is in the on status to permit the mutual induction of current.